(ii) The platform shall have toeboards complying with §1917.112(d) if tools or other objects could fall on employees below.

(iii) An employee shall be at the truck's controls whenever employees are elevated.

(iv) Employees on the platform shall be protected from exposure to moving truck parts.

(v) The platform floor shall be skid resistant.

(vi) A truck operator shall be at the truck's controls when employees are elevated unless the truck's controls are elevated with the lifting carriage.

(vii) While employees are elevated, the truck may be moved only to make minor placement adjustments.

(f) *Bulk cargo-moving vehicles.* (1) Where a seated operator may come into contact with projecting overheads, crawler-type bulk-cargo-moving vehicles that are rider operated shall be equipped with operator's guards.

(2) Guards and their attachment points shall be so designed as to be able to withstand, without excessive deflection, a load applied horizontally at the operator's shoulder level equal to the drawbar pull of the machine.

(3) After July 26, 1999 bulk cargo-moving vehicles shall be equipped with rollover protection of such design and construction as to prevent the possibility of the operator being crushed because of a rollover or upset.

(g) *Straddle trucks*—(1) *Accessibility.* Straddle trucks shall have a permanent means of access to the operator's station, including any handholds necessary for safe ascent and descent.

(2) *Guarding.* (i) Main sprockets and chains to the wheels shall be guarded as follows:

(A) The upper sprocket shall be enclosed;

(B) The upper half of the lower sprocket shall be enclosed; and

(C) The drive chain shall be enclosed to a height of eight feet (2.6 m) except for that portion at the lower half of the lower sprocket.

(ii) Gears shall be enclosed and revolving parts which may be contacted by the operator shall be guarded.

(iii) When straddle trucks are used in the vicinity of employees, personnel-deflecting guards shall be provided around leading edges of front and rear wheels.

(3) *Visibility.* Operator visibility shall be provided in all directions of movement.

(h) *Trailer-spotting tractors.* (1) Trailer-spotting tractors (fifth wheels) shall be fitted with any hand grabs and footing necessary for safe access to the fifth wheel.

(2) Rear cab windows shall be of safety glass or of equivalent material.

[48 FR 30909, July 5, 1983, as amended at 62 FR 40198, July 25, 1997]

§1917.44 General rules applicable to vehicles.[4]

(a) The requirementsof this section apply to general vehicle use within marine terminals. *Exception:* The provisions of paragraphs (c) and (l) of this section do not apply when preempted by applicable regulations of the Department of Transportation.[5]

(b) Private vehicle parking in marine terminals shall be allowed only in designated areas.

(c) Trailers shall not be disconnected from tractors at loading docks until the road wheels have been immobilized.

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[4] The United States Coast Guard at 33 CFR 126.15(d) and (e) has additional regulations applicable to vehicles in terminals.

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[5] Department of Transportation regulations in 49 CFR part 393, Subpart C–Brakes, address the immobilization of trailer road wheels prior to disconnection of the trailer and until braking is again provided. Section 49 CFR 393.84 addresses the condition of flooring. These DOT rules apply when the motor carrier is engaged in interstate commerce or in the transport of certain hazardous items wholly within a municipality or the commercial zone thereof.

[6] NHTSA charts are available from General Services Division, National Highway Traffic Safety Administration, Attention: N48–51, 400 Seventh Street, SW., Washington, D.C. 20590. Industry charts are available upon request from the manufacturer.

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The road wheels shall be immobilized from the time the brake system is disconnected until braking is again provided. Supplementary front end support shall be employed as necessary to prevent tipping when a trailer is entered by a material handling vehicle. Rear end support shall be employed if rear wheels are so far forward as to allow tipping when the trailer is entered.

(d) The employer shall direct motor vehicle operators to comply with any posted speed limits and other traffic control signs or signals, and written traffic instructions.

(e) Stop signs shall be posted at main entrances and exits of structures where visibility is impaired, and at blind intersections, unless direct traffic control or warning mirror systems or other systems of equivalent safety are provided.

(f) Vehicular routes, traffic rules, and parking areas shall be established, identified, and used.

(g) The employer shall direct vehicle drivers to warn employees in traffic lanes of the vehicle's approach.

(h) Signs indicating pedestrian traffic shall be clearly posted at vehicular check-in and check-out lines and similar locations where employees may be working.

(i) A distance of not less than 20 feet (6.1 m) shall be maintained between the first two vehicles in a check-in, check-out, roadability, or vessel loading/discharging line. This distance shall be maintained between any subsequent vehicles behind which employees are required to work.

(j) No unattended vehicle shall be left with its engine running unless secured against movement (see § 1917.43(b)(3) for powered industrial trucks).

(k) When the rear of a vehicle is elevated to facilitate loading or discharging, a ramp shall be provided and secured. The vehicle shall be secured against accidental movement during loading or discharging.

(l) Only highway vehicle floors in safe condition shall be used.

(m) When flatbed trucks, platform containers or similar conveyances are loaded or discharged and the cargo consists of pipe or other products which could spread or roll to endanger employees, the cargo shall be contained to prevent movement.

(n) Vehicles used to transport employees within a terminal shall be maintained in safe working order and safety devices shall not be removed or made inoperative.

(o) *Servicing multi-piece and single piece rim wheels.* Servicing of multi-piece and single piece rim wheels is covered by § 1910.177 of this chapter.

(1) *Scope.* This paragraph applies to the servicing of vehicle wheels containing tube-type tires mounted on multi-piece rims.

(2) *Definition.* ''Multi-piece rim'' means a vehicle wheel rim consisting of two or more parts, one of which is a (side) locking ring designed to hold the tire on the rim by tension on interlocking components when the tire is inflated, regardless of the relative sizes of the component parts.

(3) *Employee training.* (i) Only employees trained in the procedures required in paragraph (o)(4) of this section and who have demonstrated their ability to service multi-piece rim wheels shall be assigned such duties.

(ii) Employees assigned such duties shall have demonstrated their ability by the safe performance of the following tasks:

(A) Tire demounting (including deflation);

(B) Inspection of wheel components;

(C) Mounting of tires;

(D) Inflation of tires, including use of a restraining device;

(E) Handling of wheels;

(F) Inflation of tires when a wheel is mounted on the vehicle; and

(G) Installation and removal of wheels.

(4) *Servicing procedures.* The following procedures shall be followed:

(i) Tires shall be completely deflated before demounting by removal of the valve core;

(ii) The valve core shall be removed before the wheel is removed from the axle when:

(A) The tire has been operated underinflated at 80% or less of its recommended pressure, or

(B) There is discernible or suspected damage to the tire or wheel components;

(iii) Mating surfaces shall be free of dirt, surface rust, scale and rubber buildup before mounting;

(iv) Rubber lubricant shall be applied to bead and rim mating surfaces upon wheel assembly and inflation of the tire;

(v) Air pressure shall not exceed 3 psig (0.21 kg/cm^2) when seating the locking ring or rounding out the tube when a tire is being partially inflated without a restraining device;

(vi) While the tire is pressurized, components shall not be struck or forced to correct the seating of side or lock rings;

(vii) There shall not be any contact between an employee or unit of equipment and a restraining device during tire inflation;

(viii) After inflation, tires, rims and rings shall be inspected while within the restraining device to ensure seating and locking. If adjustment is necessary the tire shall first be deflated by valve core removal; and

(ix) Before assembly, wheel components shall be inspected, and damaged rim components shall not be reused.

(5) *Charts and manuals.* (i) The employer shall provide a chart containing as a minimum the instructions and information provided in the United States Department of Transportation, National Highway Traffic Safety Administration (NHTSA) publication ''Safety Precautions for Mounting and Demounting Tube-Type Truck/Bus Tires'' and ''Multi-Piece Rim Wheel Matching Chart,'' and pertinent to the type(s) of multi-piece rim wheels being serviced. The chart shall be available in the terminal's service area.[6]

(ii) A current rim manual containing the manufacturer's instructions for mounting, demounting, maintenance and safety precautions relating to the multi-piece rim wheels being serviced shall be available in the terminal's service area.

(6) *Restraining devices.* (i) Except as otherwise noted, inflation shall be done within a restraining device such as a cage, rack or other device capable of withstanding the maximum force that would be transferred to it during an explosive wheel separation occurring at 150% of maximum tire specification pressure for the wheels being serviced. The restraining device shall be capable of preventing rim components from being thrown outside the frame of the device for any wheel position within the device. When the wheel assembly is mounted on a vehicle, tires may be inflated without a restraining device only if they have more than 80% of the recommended pressure and if remote control inflation equipment is used and employees are clear of the danger area.

(ii) Restraining devices shall be kept in good repair and be capable of preventing rim components from being thrown outside the device.

(7) *Inflation hoses.* Inflation hoses shall have a manual clip-on chuck with sufficient hose to permit an employee to be clear of the danger zone. An in-line, manually operated valve with gauge or a preset pressure regulator shall be used to inflate tires.

(8) *Other equipment.* (i) Only tools recommended in the rim manual for the type of wheel being serviced shall be used to service multi-piece rim wheels.

(ii) Wheel components shall not be interchanged except as provided in the applicable chart or manual.

[48 FR 30909, July 5, 1983, as amended at 52 FR 36026, Sept. 25, 1987; 62 FR 40199, July 25, 1997]

§ 1917.45 Cranes and derricks (See also § 1917.50).

(a) *Coverage.* (1) This section applies to every kind of crane and derrick and to any other type of equipment performing the functions of a crane or derrick except as noted in paragraph (a)(2) of this section.

(2) This section does not apply to small industrial truck-type cranes, container handling top-loaders and sideloaders, chain hoists, and mobile straddle-type cranes incapable of straddling two or more intermodal containers (16 feet (4.88 m) in width).

(b) *Ratings.* (1) Except for bridge cranes covered by paragraph (g) of this section, cranes and derricks having ratings that vary with boom length, radius (outreach) or other variables shall

[6] NHTSA charts are available from General Services Division, National Highway Traffic Safety Administration, Attention: N48–51, 400 Seventh Street, SW., Washington, D.C. 20590. Industry charts are available upon request from the manufacturer.